

## GrimmSpeed Install Guide Series Installing the GrimmSpeed 2015+ WRX Charge Pipe Updated 11/21/15

**Introduction:** This guide will illustrate the installation of the GrimmSpeed 2015+ WRX Charge Pipe. The difficulty here is medium, so take your time and enjoy the job! Expect to spend 60-90min, depending on level of experience.

**Tools:** The tools listed below are suggested for this task.

- Flathead screwdriver
- Pliers
- 10mm, 12mm, 13mm socket and accompanying ratchet/extensions



<u>Tips:</u> Take care not to over tighten the plastic tapping screws and damage the threads on the plastic turbo inlet. Also, be sure that your vacuum lines are routed such that they aren't tight or rubbing on sharp edges.

## **Procedure:**

- 1. Begin by collecting your tools and popping your hood. Verify the contents of your charge pipe kit match the below picture.
  - (1) GrimmSpeed Charge Pipe
  - (1) Reducing Coupler
  - (1) 0-ring
  - (1) Silicone Turbo Outlet Hose
  - (1) Large Hose Clamp
  - (2) Medium Hose Clamps
  - (1) Small Hose Clamp
  - (1) Smaller Bypass Valve Hose Clamp



2. Remove the factory snorkel by loosening the two "screws" and then popping them out of their holes.



3. Next, loosen the coupler of the OEM charge pipe to the inlet of the intercooler.



4. Now safely raise the front of the vehicle and support it with jackstands or ramps as the next portion of the installation occurs under the front of the vehicle. From there, loosen and remove the coupler attaching the intake to the turbo inlet. If your intake is OEM it will be an "accordion style" s-tube, but is removed just the same.



5. Using your pliers, loosen the clamp holding the bypass valve to the plastic turbo inlet, and move it down and out of the way of the bypass valve.



6. Loosen the hose clamp attaching the other end of bypass valve to the charge pipe with your flathead screwdriver, and move it out of the way.



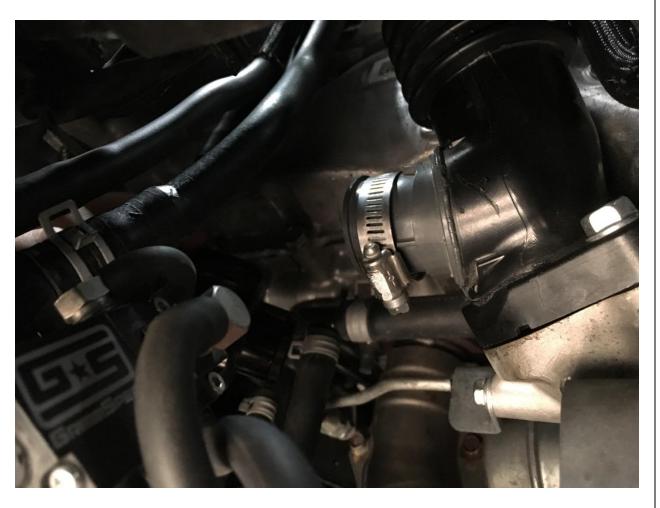
7. Remove the two 10mm bolts attaching the plastic turbo inlet to the compressor housing of the turbo.



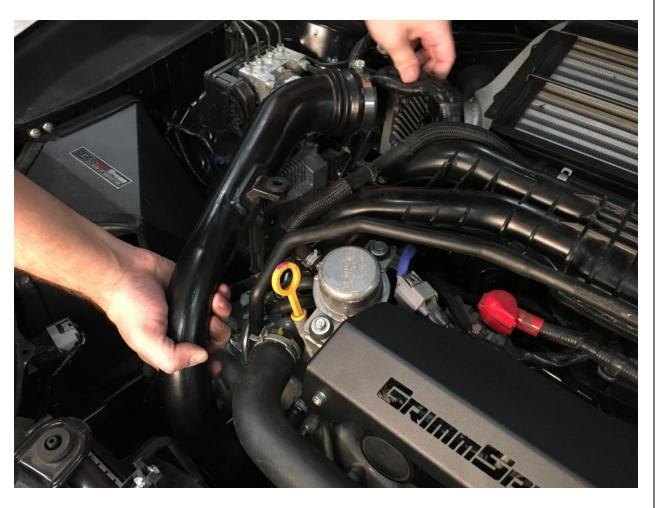
8. With the turbo inlet unbolted from the compressor housing gently pull the turbo inlet down, removing it from the bypass valve. Remove the small vacuum line going to the "head" of the bypass valve, and then remove the bypass valve itself from the charge pipe and set it aside.



9. Next, remove the two 12mm bolts connecting the OEM charge pipe to the compressor housing.



10. From the top of the vehicle lift the OEM charge pipe off its bushing on the intake manifold, off the intercooler. Remove it from the engine bay and set it aside.



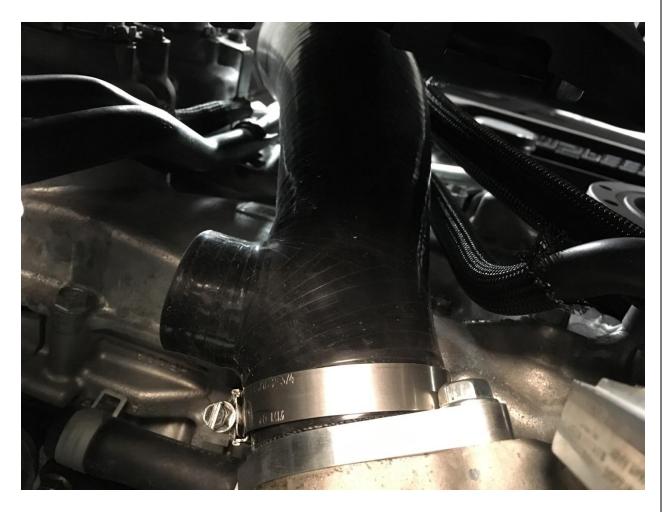
11. Locate the GrimmSpeed Aluminum Turbo Outlet Adapter, the supplied O-ring, and the two supplied 13mm bolts. Assemble the O-ring and adapter as shown.



12. Place the adapter onto the compressor outlet where you removed the OEM chargepipe from the turbo. Using the supplied 13mm bolts and a 13mm socket, tighten the bolts to 11.8ftlbs.



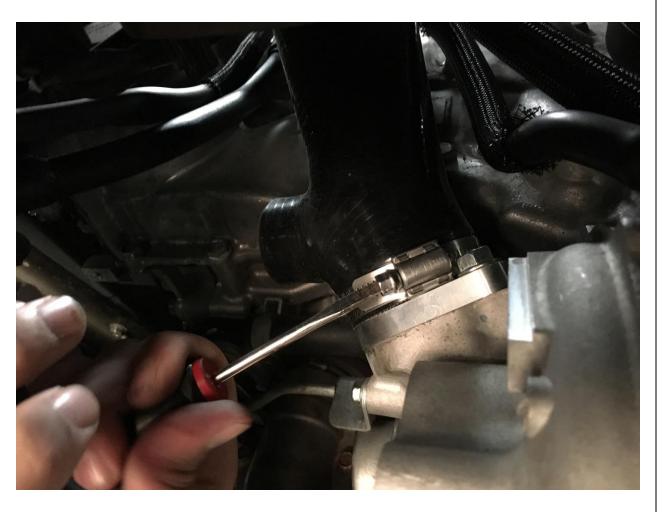
13. Locate the second smallest hose clamp, as well as the GrimmSpeed Silicone Turbo Outlet Hose. Place the hose clamp on the second smallest opening on the outlet hose, and slip the entire assembly onto the turbo outlet adapter.



14. Rotate the outlet hose so the smallest outlet is clocked toward where the inlet of the bypass valve was. Looking up into the engine bay, make sure the outlet hose is rotated in such a way that it is not pointing at the silver bracket attached to the timing cover shown in the middle of this picture.



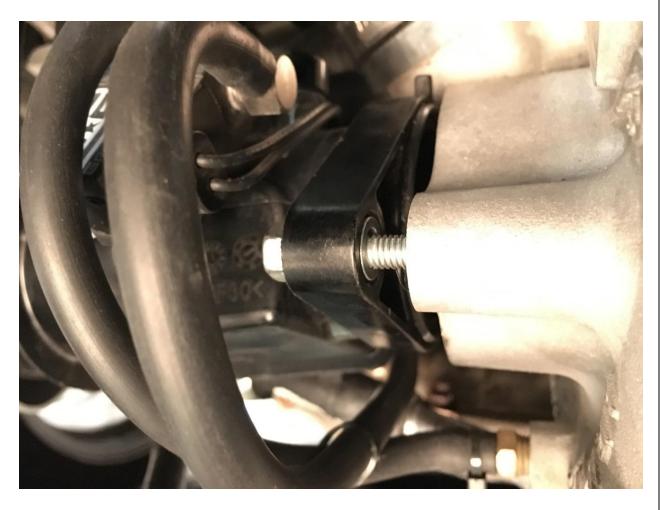
15. Verify that the silicone outlet hose is pushed all the way down on the turbo outlet adapter, and make sure that the hose clamp is in between the two 13mm bolt heads and all the way at the bottom of the silicone outlet hose, as shown in this picture. Then tighten the hose clamp.



16. Locate the smallest supplied hose clamp, and place it over the outlet near the connection to the turbo outlet you just completed. Take your bypass valve and push it into that outlet all the way in.



17. Grab the plastic turbo inlet, and insert the hose you removed from the bypass valve in Step 5 back onto the bypass valve all the way in. Using your pliers, replace the clamp that was removed in Step 5, and replace the small vacuum line to the "head" of the bypass valve. Using the two OEM 10mm bolts, re-attach the turbo inlet to the compressor housing.



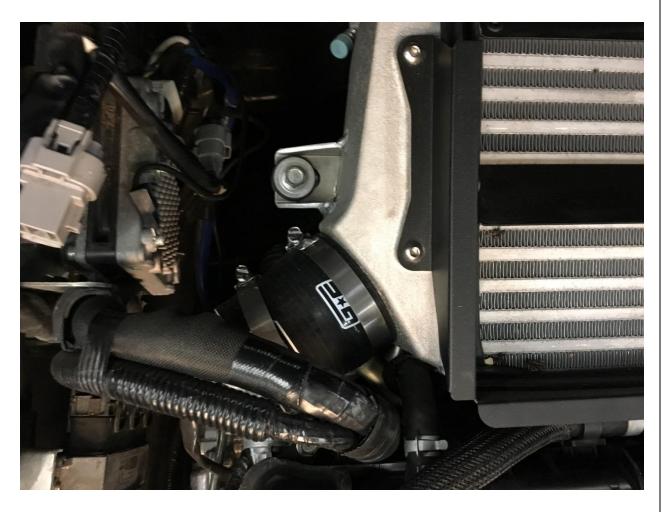
18. Using your flathead screwdriver, tighten the hose clamp connecting the bypass valve to the silicone outlet hose.



19. Re-attach your intake coupler to the turbo inlet, and tighten the clamps. You may now lower the front of the vehicle back onto the ground.



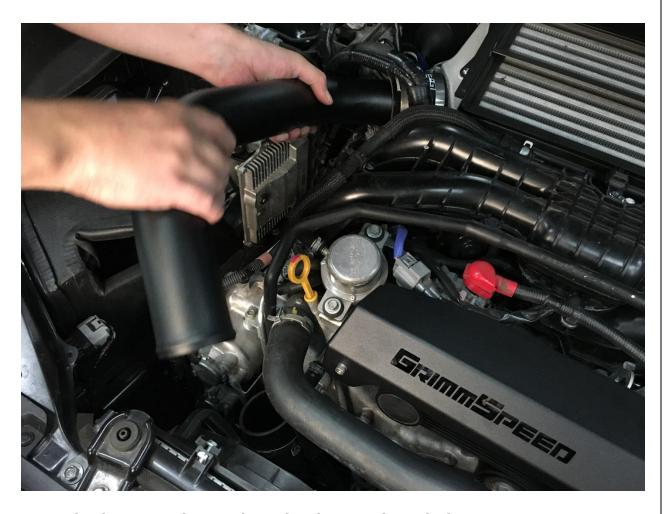
20. Locate the supplied reducing coupler as well as the largest hose clamp, and one of the two medium sized hose clamps. Place the large end of the reducing coupler onto the intercooler and place both hose clamps onto the coupler, starting with the large one. Tighten the large clamp over the coupler onto the intercooler, but leave the medium sized coupler loose.



21. Locate the second medium sized coupler and place it onto the open end of the silicone turbo outlet hose.



22. Take the GrimmSpeed Charge pipe, and with the logo facing up, slip one end all the way into the reducing coupler on the intercooler.



23. Rotate the charge pipe down and into the silicone turbo outlet hose.



24. Ensure that the silicone outlet hose is not touching the radiator fan motor. If it is, push the end of the charge pipe further into silicone turbo outlet hose and recheck for clearance. If still no good, tighten the hose clamp at that junction and push the opposite end of the charge pipe further into the intercooler's reducing coupler, and tighten the hose clamp joining the charge pipe to that coupler. Ensure that the charge pipe is also not contacting the upper radiator hose. Any other contact with the charge pipe to the engine itself is fine, but can be dialed out if desired with the same above process of adjusting the charge pipe into the two couplers. If it cannot be adjusted out some additional clocking of the charge pipe or of the silicone turbo outlet hose may be required.



25. Check to make sure that all hose clamps are on the opposite side of the bead roll on the pipe, and that they are tight. You will be able to feel the bead roll of the pipe through the silicone with your fingers.



26. Reattach your snorkel and enjoy your new GrimmSpeed Charge Pipe!



Don't hesitate to contact us directly with any questions! Sales@GrimmSpeed.com | 612-379-0000